



**Air Quality
PERMIT TO CONSTRUCT**

**State of Idaho
Department of Environmental Quality**

PERMIT No.: P-050312

FACILITY ID No.: 029-00003

AQCR: 61 **CLASS:** A

SIC: 2874 **ZONE:** 12

UTM COORDINATE (km): 455.8, 4731.8

1. PERMITTEE

Nu-West Industries, Inc; Agrium Conda Phosphate Operations

2. PROJECT

West Gyp Stack

3. MAILING ADDRESS

3010 Conda Road

CITY

Soda Springs

STATE

ID

ZIP

83276

4. FACILITY CONTACT

Monty Johnson

TITLE

Environmental Manager

TELEPHONE

(208) 547-4381 ext. 263

5. RESPONSIBLE OFFICIAL

Charles H. Ross

TITLE

General Manager

TELEPHONE

(208) 547-4381

6. EXACT PLANT LOCATION

7 miles north of Soda Springs, 1.2 miles east of Highway 34

COUNTY

Caribou

7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS

Phosphate-based fertilizer products

8. GENERAL CONDITIONS

This permit is issued according to IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be constructed or modified by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (d) in no manner implies or suggests that the Department of Environmental Quality (DEQ) or its officers, agents, or employees, assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit is not transferable to another person, place, or piece or set of equipment. This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes of design or equipment may require DEQ approval pursuant to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.200, et seq.

TONI HARDESTY, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE ISSUED: Draft

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Acronyms, Units, and Chemical Nomenclature

AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
CAA	Clean Air Act
CFR	Code of Federal Regulations
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EPA	U.S. Environmental Protection Agency
gpm	gallons per minute
HAPs	hazardous air pollutants
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pound per hour
MMBtu	million British thermal units
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
NSPS	New Source Performance Standards
PM	particulate matter
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PTC	permit to construct
PTE	potential to emit
scf	standard cubic feet
SIC	Standard Industrial Classification
SIP	State Implementation Plan
T/yr	tons per year
UTM	Universal Transverse Mercator

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1. PERMIT TO CONSTRUCT SCOPE***Purpose***

- 1.1 This PTC is for the construction of a new phosphogypsum stack on the northwest corner of Agrium's facility that will be referred to as the "west gyp stack."

Regulated Sources

Table 1.1 lists all sources of regulated emissions in this PTC.

Table 1.1 SUMMARY OF REGULATED SOURCES

Permit Section	Source Description	Emissions Control(s)
2	West gyp stack – 125 acres The west gyp stack is a phosphogypsum settling pond	None

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2. WEST GYP STACK

2.1 Process Description

Phosphogypsum, a by-product of the phosphoric acid production process, is slurried to a pile referred to as a “gyp stack.” The slurry is approximately 20% solids. At the gyp stack, solids in the slurry are allowed to settle and the water is decanted to an evaporative cooling pond. The process water is recycled to the processing plant.

The settled phosphogypsum is allowed to dry to a moisture content of about 40% by directing the slurry to a rotation of cells on the stack. When a cell has dried appropriately, the cell is excavated using a backhoe to build up the exterior dikes of the stack. When the interior of the cell is excavated and dikes are elevated to the necessary height, the cell is flooded with slurry again.

2.2 Emissions Control Description

Table 2.1 WEST GYP STACK DESCRIPTION

Emissions Unit(s) / Process(es)	Emissions Control Device	Emissions Point
West gyp stack	None	Fugitive from gyp stack

Emissions Limits

2.3 Emissions Limits

The fluoride (F) emissions from the west gyp stack and the phosphoric acid plant shall not exceed any corresponding emissions rate limits listed in Table 2.2.

Table 2.2 WEST GYP STACK EMISSIONS LIMITS

Source Description	F	
	lb/day	T/yr
West gyp stack	200	36.5
Phosphoric acid plant		3.8

2.4 Reasonable Control of Fugitive Dust

All reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651.

2.5 Radon Emissions from Phosphogypsum Stacks

Each person who generates phosphogypsum shall place all phosphogypsum in stacks. Phosphogypsum may be removed from a phosphogypsum stack only as expressly provided by 40 CFR 61, Subpart R, National Emission Standards for Radon Emissions from Phosphogypsum Stacks. If the gypsum stack becomes classified as inactive, the stack is then subject to the radon-222 emissions limits (1.9 pCi/(ft-sec) and related requirements in 40 CFR 61 Subpart R. *Inactive stack* means a stack to which no further routine additions of phosphogypsum will be made and which is no longer used for water management associated with the

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production of phosphogypsum. If a stack has not been used for either purpose for two years, it is presumed to be inactive.

Operating Requirements

2.6 Gyp Stack Area Limits

The wetted surface area of the west gyp stack shall not exceed 125 acres.

2.7 Distribution and Use of Phosphogypsum

Phosphogypsum may be lawfully removed from a stack and distributed for use in outdoor agricultural research and development, agricultural field use, indoor research and development activities, or for other purposes, only in accordance with the requirements of 40 CFR 61 Subpart R.

2.6 Phosphoric Acid Plant P₂O₅ Throughput Limit

The equivalent P₂O₅ feed to the phosphoric acid plant shall not exceed 560,000 tons per any consecutive 12-month period.

Monitoring and Recordkeeping Requirements

2.8 Gyp Stack Area Monitoring

Once per year, the permittee shall measure and record, in acres, the wetted surface area of the west gyp stack.

2.9 Radon Monitoring and Compliance Procedures

Within 60 days following the date on which a stack becomes an inactive stack each owner or operator of an inactive phosphogypsum stack shall test the stack for radon-222 flux in accordance with the procedures described in 40 CFR part 61, Appendix B, Method 115. DEQ and EPA shall be notified at least 30 days prior to each such emissions test so that DEQ or the EPA may, at its option, observe the test. The test report shall be submitted according to the requirements in 40 CFR 61.203.

2.10 Phosphoric Acid Plant Feed

Each month the permittee shall monitor and record the phosphoric acid plant feed for the previous month and the phosphoric acid plant feed for the previous 12-month period.

Reporting Requirements

2.10 Reporting

All facilities designated under 40 CFR 61 Subpart R are exempt from the reporting requirements of 40 CFR 61.10.

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3. PERMIT TO CONSTRUCT GENERAL PROVISIONS

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the Rules for the Control of Air Pollution in Idaho. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code §39-101, et seq.
2. The permittee shall at all times (except as provided in the Rules for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.
3. The permittee shall allow the Director, and/or the authorized representative(s), upon the presentation of credentials:
 - To enter, at reasonable times, upon the premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit.
 - At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and require stack compliance testing in conformance with IDAPA 58.01.01.157 when deemed appropriate by the Director.
4. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
5. The permittee shall notify DEQ, in writing, of the required information for the following events within 5 working days after occurrence:
 - Initiation of Construction - Date
 - Completion/Cessation of Construction - Date
 - Actual Production Startup - Date
 - Initial Date of Achieving Maximum Production Rate - Production Rate and Date
6. If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

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Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

7. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
8. In accordance with IDAPA 58.01.01.123, all documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.